

## Product datasheet for **TA812719S**

### ALDH4A1 Mouse Monoclonal Antibody [Clone ID: OTI1H10]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI1H10
Applications:	IHC, WB
Recommended Dilution:	WB 1:500, IHC 1:500
Reactivity:	Human, Dog, Rat, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human recombinant protein fragment corresponding to amino acids 1-503 of human ALDH4A1 (NP_001154976) produced in E.coli.
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	1 mg/ml
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	aldehyde dehydrogenase 4 family member A1
Database Link:	<a href="#">NP_001154976</a> <a href="#">Entrez Gene 212647</a> <a href="#">MouseEntrez Gene 641316</a> <a href="#">RatEntrez Gene 612452</a> <a href="#">DogEntrez Gene 8659</a> <a href="#">Human</a> <a href="#">P30038</a>



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**Background:**

This protein belongs to the aldehyde dehydrogenase family of proteins. This enzyme is a mitochondrial matrix NAD-dependent dehydrogenase which catalyzes the second step of the proline degradation pathway, converting pyrroline-5-carboxylate to glutamate. Deficiency of this enzyme is associated with type II hyperprolinemia, an autosomal recessive disorder characterized by accumulation of delta-1-pyrroline-5-carboxylate (P5C) and proline. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Jun 2009]

**Synonyms:**

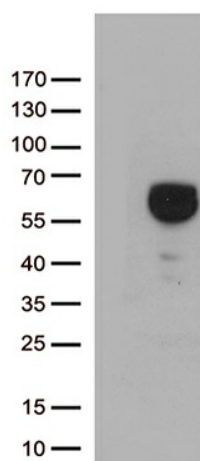
ALDH4; P5CD; P5CDh

**Protein Families:**

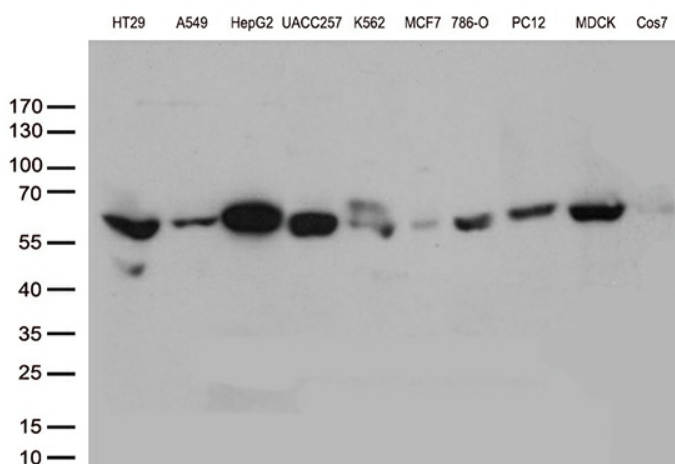
Druggable Genome

**Protein Pathways:**

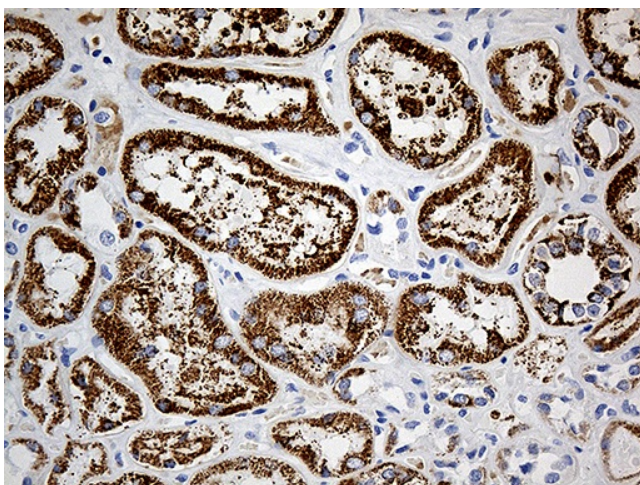
Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Metabolic pathways

**Product images:**


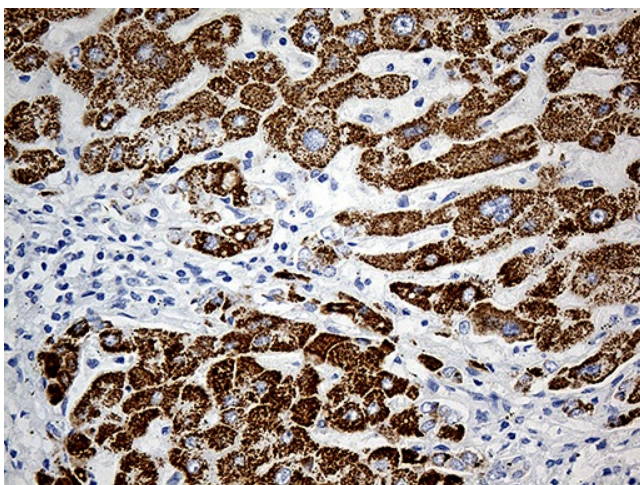
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ALDH4A1 (Cat# [RC204884], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ALDH4A1 (Cat# [TA812719])(1:500).



Western blot analysis of extracts (35ug) from 10 different cell lines by using anti-ALDH4A1 monoclonal antibody (1:500).



Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-ALDH4A1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 120°C for 3min, [TA812719]) (1:500)



Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-ALDH4A1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 120°C for 3min, [TA812719]) (1:500)